

Do Mass and Social Media have Roles in Preventing and Controlling COVID-19 among Adolescents in Jakarta?

Serri Hutahaean,¹ Nourmayansa Vidya Angraini,¹ Chahya Kharin Herbawani² and Laily Hanifah²

¹Department of Nursing, Faculty of Health Science, Universitas Pembangunan Nasional Veteran Jakarta, Indonesia

²Department of Public Health, Faculty of Health Science, Universitas Pembangunan Nasional Veteran Jakarta, Indonesia

ABSTRACT

Objective. This study aims to determine the role of mass and social media in the prevention and control of COVID-19 among adolescents in DKI Jakarta.

Methods. This research was conducted using a cross-sectional design. The participants in this study were 228 adolescents in the DKI Jakarta area. The data were collected using a questionnaire (Google Form) and analyzed by Chi-square test using SPSS.

Results. The results of the analysis showed that there was no relationship between mass and social media and COVID-19 prevention and control efforts among adolescents in DKI Jakarta (p 0.38). Adolescents perceived themselves as low risk of contracting COVID-19 so the message to prevent and control COVID-19 using mass and social media do not have impact on them.

Conclusion. There is no relationship between mass and social media and the prevention and control of COVID-19 in adolescents. It is recommended to increase the knowledge of adolescents about COVID-19, especially in school health facilities.

Keywords: COVID-19, prevention, mass and social media, adolescents

INTRODUCTION

As of February 13, 2021, COVID-19 has 107,423,526 confirmed cases worldwide from 223 countries and 2,360,280 deaths, while Indonesia has 1,202,859 confirmed cases and 32,656 deaths.¹ *Daerah Khusus Ibukota* Jakarta, the capital city of Indonesia, has the highest number of COVID-19 cases, 303,715 (25.7%) among other provinces in Indonesia.² The spread of COVID-19 continues to increase significantly especially in Jakarta. There are many channels used to share information on COVID-19, one of those is through the media (mass and social).

Mass and social media are the most widely used sources to get information related to COVID-19 as found in Jordan, where majority of adolescents reported that television and social media are their main sources of information on COVID-19.³ Another research in Jordan shows that the use of social media platforms can positively influence awareness of changing public health behavior and public protection against COVID-19.⁴ A comprehensive review explained that the use of social media and the internet in infectious diseases has proven to have an important role in conveying



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Corresponding author: Serri Hutahaean
Fakultas Ilmu Kesehatan
Universitas Pembangunan Nasional Veteran Jakarta
Jl. Raya Limo, Depok, Jawa Barat, Indonesia
Email: serrithyn@upnvj.ac.id
ORCID: <https://orcid.org/0000-0002-0741-1406>

initial information on public health to take action to prevent the disease.⁵

A person's knowledge and attitude can influence the prevention and spread of COVID-19. Research in Jakarta explains that knowledge and attitudes can affect the implementation of infection prevention and control.⁶ In contrast to the research, a study among students in Jakarta found that there was no relationship between knowledge and COVID-19 prevention.⁷ This shows that if someone already knows about COVID-19, then there may still be other factors that affect the prevention and spread of COVID-19 besides knowledge.

Adolescents have special needs toward the source of information, including those related to COVID-19. The researchers want to explore the role of mass and social media in the prevention and spread of COVID-19 among adolescents in DKI Jakarta.

METHODS

Study Design and Sample

This is a cross-sectional study conducted in *Daerah Khusus Ibukota* (DKI) Jakarta on June 2021. According to the data from Central Bureau of Statistics (*Badan Pusat Statistik*/BPS) DKI Jakarta in 2019, the number of adolescents in DKI Jakarta is 1,505,148.⁸ The inclusion criteria for this study were adolescents aged 10-20 years old and who were residents of DKI Jakarta. The authors set 95% as level of confidence, 10% precision, and calculated 228 as sample size.

Study Tools

This study employed a questionnaire distributed via Google Form. The questionnaire was validated prior to its use, and no changes were made to the instrument during the data collection process. The data collection was self-administered using the participant's personal mobile phones or devices.

Data Collection

The data collection started with the respondents filling out a questionnaire on Google Form. The collected data were subsequently cleaned and coded. Following this, univariate and bivariate analyses were performed. To examine the relationship between mass media and social media with the prevention and control of COVID-19 among adolescents, a bivariate analysis using the Chi-square test was conducted, as the data were categorical.⁹

Ethical Considerations

This study was approved by the Ethical Committee of Universitas Pembangunan Nasional Veteran Jakarta No. 279/VI/2021/KEPK. The questionnaire used had undergone validity and reliability testing prior to its use, and each researcher subsequently verified the accuracy of the data

provided by the respondents. These steps were taken to ensure the trustworthiness and credibility of this study.

RESULTS

The results showed that the majority of respondents were women (53.2%), aged 18-21 years old (48.7%), and had junior high school education (45.2%).

Table 1 shows that the majority of sources of information regarding the prevention and control of COVID-19 in adolescents are television and social media (Facebook, WhatsApp, Instagram, Twitter).

Table 2 shows that COVID-19 prevention and control efforts in adolescents are almost balanced between good and poor. The prevention and control of COVID-19 are responses to health threats that motivate individuals to take action to protect themselves and prevent the spread of the virus. This is influenced by external and internal factors such as information from mass media, advice from others, or family member's experiences of getting COVID-19. Information about the benefit of implementing a healthy lifestyle can influence someone to take action to prevent a disease. If someone has motivation to act well, they are more likely to take preventive action.

In this study, COVID-19 prevention and control consisted of five aspects: use of hand sanitizer if hands are not too dirty or wash hands with soap if hands are visibly dirty; avoid touching eyes, nose, and mouth; cover the nose and mouth with inner upper arm or tissue then throw the tissue in the trash when coughing or sneezing; wear a medical mask if you have a respiratory tract disease's symptoms and wash hands carefully after disposing masks; and maintain a distance from people who have symptoms.

Table 3 shows that there is no relationship between mass and social media and COVID-19 prevention and control efforts in adolescents in DKI Jakarta (P value 0.38).

Table 1. Information Sources regarding COVID-19 (N=228)

Source of information	n	%
<i>Mass media (Television)</i>	110	48.2
<i>Social media (Facebook, WhatsApp, Instagram, Twitter)</i>	100	43.9
<i>Others</i>	12	5.3
<i>Printed media (Magazine/newspaper)</i>	4	1.8
<i>Radio</i>	1	0.4
<i>Leaflet, flyer, banner, billboard</i>	1	0.4
Total	228	100

Table 2. Overview of COVID-19 Prevention and Control (N=228)

Prevention and Control of COVID-19	n	%
Good	115	50.4
Poor	113	49.6
Total	228	100

Table 3. Analysis of the Relationship between Media and COVID-19 Prevention and Control (N=228)

Media	Prevention and control of COVID-19				Total (N)	%	P value
	Good		Poor				
	n	%	n	%			
Mass media (Television)	49	44.5	61	55.5	110	100	
Social media (Facebook, WhatsApp, Instagram, Twitter)	54	54.0	46	46.0	100	100	0.38
Others	8	66.7	4	33.3	12	100	
Printed media (Magazine/newspaper)	2	50.0	2	50.0	4	100	
Radio	1	100	0	0	1	100	
Leaflet, flyer, banner, billboard	1	100	0	100	1	100	
Total	115	50.4	113	49.6	228	100	

DISCUSSION

The results showed that most of the adolescents in this study received sources of information related to the prevention and control of COVID-19 from television with a total of 48.2%, followed by social media such as Facebook, Whatsapp, Instagram, Twitter with a total of 43.9%. This is in line with a research in Jordan where the majority of adolescents reported that television and social media are their main sources of information to find out information related to COVID-19.³ It is also similar from a study that showed the internet is the main source of the respondents in getting information about COVID-19.¹⁰ Sources of information from leaflets, flyers, banners, and billboards in this study were the least obtained by respondents (0.4%). This shows that those kind of media are less attractive to adolescents in meeting their information needs.

A study shows that people have a need for accurate and fast information so that the use of online media is considered as the right choice, because through the internet, people can more easily access health-related information from anyone, anytime and anywhere.¹¹ Another study states that adolescents and social media cannot be separated. Social media is a necessity in the daily lives of adolescents where they can share information.¹² The type of social media that are often used in Indonesia are Youtube, WhatsApp, and Facebook, and Instagram.¹³

The results of this study indicate that efforts to prevent and control COVID-19 in adolescents are classified as balanced between good and poor. A study in Wonosobo also showed that 161 people (48.9%) were still found to have poor behavior in using masks as an effort to prevent and control COVID-19.¹⁴

The use of social media among adolescents in this study has reached 43.9%, however 49.6% of them have poor behaviour to prevent and control COVID-19. This is unfortunate because social media can play a very important role in empowering the community. Social media is considered to be one way to change behavior in individuals or society if it is used optimally.¹⁵

The result of the analysis using the Chi-square test in this study found that there was no relationship between mass and social media and the prevention and control of COVID-19 among adolescents in DKI Jakarta (P 0.38). This was different from a study in Medan, North Sumatera, Indonesia which showed that there was a correlation between the news of COVID-19 in online mass media and the decision to adopt a clean and healthy lifestyle. Since they experienced the impact of COVID-19, they decided to practice a clean and healthy lifestyle to avoid COVID-19.¹⁶

Most of the respondents in this study are still studying in high school, and some of them have limited use of social media and the means to receive information about COVID-19. In addition, there is also the possibility that even though there are many information on COVID-19 in the media, the respondents' risk perception of COVID-19 in this study is negative. A study conducted in West Java, Banten, and DKI Jakarta showed that almost 50% of respondents believed that their chances of contracting COVID-19 were low.¹⁷ Meanwhile, studies in ten countries have shown that risk perception is significantly correlated with COVID-19 prevention behavior.¹⁸ Respondents in this study have poor behaviour towards prevention and control of COVID-19 might be because no one in their family is directly affected by COVID-19.

The behaviour must be based on the awareness of each individual because many people actually already have knowledge related to health protocols or the COVID-19 pandemic but cannot apply it properly in their daily lives. A study conducted in Indonesia shows that most of the respondents who have a good attitude have good knowledge as well.¹⁹ Good knowledge determines positive attitude and behaviour. This is in line with a study that showed a relationship between the level of education and the behaviour of preventing the COVID-19.²⁰ Knowledge is the basis of a person in responding to something and a positive attitude can be formed by the cognitive component.²¹

This research also has a limitation. The cross-sectional design of the study could not allow us to explore causation beyond associations.

CONCLUSIONS

There is no significant relationship between mass and social media and the prevention and control of COVID-19 among adolescents in DKI Jakarta. Adolescents perceived themselves as having low risk of contracting COVID-19 so the mass and social media do not have an impact on them in preventing and controlling COVID-19. Therefore, it is recommended that all parties, especially school health facilities, work together to increase the knowledge and perception of adolescents on the risk of COVID-19.

Statement of Authorship

All authors certified fulfillment of ICMJE authorship criteria.

Author Disclosure

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